

MCF 3M

Review of key Skills

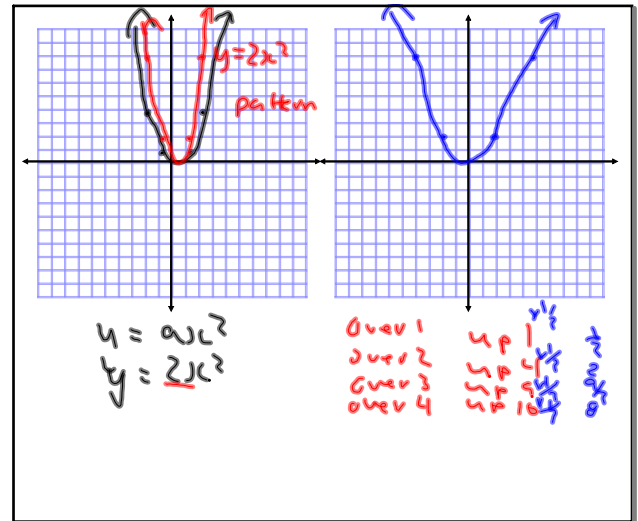
- Recognizing Graphs
- Translations
- Expansion
- Factoring
- Identifying the Zeros/Roots
- Finding Vertex Form - Completing the Square
- Finding Standard Form

Test
Thurs

p186 q 3-7, 9, 11-18
p226 1, 2, 3, 4 & 5

p254-255 q 1-10

Mar 10-8:12 AM



Mar 11-10:12 AM

$$f(x) = -4x^2 - 8x + 12$$

$$f(x) = -4(x^2 + 2x) + 12 \quad \text{partial factor}$$

$$f(x) = -4(x^2 + 2x + 1 - 1) + 12 \quad \left(\frac{6}{2}\right)^2$$

$$f(x) = -4[(x+1)^2 - 1] + 12 \quad \left(\frac{6}{2}\right)^2$$

$$f(x) = -4(x+1)^2 + 4 + 12$$

$$f(x) = -4(x+1)^2 + 16 \quad [-1, 16]$$

Mar 11-9:43 AM

$$f(x) = x^2 + 2x - 35$$

$$f(x) = x^2 + 7x - 5x - 35$$

$$f(x) = x(x+7) - 5(x+7) + 2 \quad \text{factored zeros}$$

$$= (x+7)(x-5) + 2$$

$$S = -7, T = +5$$

Mar 11-10:07 AM

p223 q 7 A=400

$$f(x) = 60x - 2x^2 \quad \text{Revenue}$$

$$0 = 60x - 2x^2 - 400$$

$$0 = -2x^2 + 60x - 400$$

$$0 = -2x^2 + 60x - 400$$

$$a = -2, b = 60, c = -400$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-60 \pm \sqrt{60^2 - 4(-2)(-400)}}{2(-2)}$$

$$x = \frac{-60 \pm \sqrt{3600 - 3200}}{-4}$$

$$x = \frac{-60 \pm \sqrt{400}}{-4}$$

$$x = \frac{-60 \pm 20}{-4}$$

$$x = \frac{-60 + 20}{-4} = \frac{-40}{-4} = 10$$

$$x = \frac{-60 - 20}{-4} = \frac{-80}{-4} = 20$$

Therefore the optimal dimensions of a fence with an area of 4000 is 20x20 or 10x40.

Mar 24-10:52 AM

$$f(x) = 2(x+2)^2 - 7$$

$$D = \{x \in \mathbb{R}\}$$

$$R = \{f(x) \in \mathbb{R} \mid f(x) \leq -2\}$$

$$R = \{x \in \mathbb{R} \mid f(x) \leq -2\}$$

$$f(x) = -3(x+3)^2 - 2$$

Mar 24-10:57 AM

#7 Sally $t = 5$
 $h(t) = -5t^2 + 10t$
 $h(t) = -5(t^2 - 2t)$ Dangerous
 $h(t) = -5(t^2 - 2t + 1 - 1)$ Ball
 $h(t) = -5(t-1)^2 - 1$ 3m
 $h(t) = -5(t-1)^2 + 5$
 $(1, 5)$
 The ball reaches a maximum height of 5m at 1 sec. Therefore it is a dangerous ball.

Nov 2-9:39 AM

p 120-121 q. 11, 12,
 15, 16 & 18
 p 184 q. 1-10

Nov 2-8:39 AM